Remarks

Claims 1-19 remain pending in this application after enter of this paper. The Examiner has rejected claims 1, 10 and 11 under 35 U.S.C. § 102(b) as being anticipated by, or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Benyacar et al. (U.S. Patent No. 5,003,584). The Examiner has rejected claims 1-4, 6-14 and 16-19 under 35 U.S.C. § 102(e) as being anticipated by Jagadish et al. (U.S. Patent No. 5,915,006). The Examiner has rejected claims 5 and 15 under 35 U.S.C. § 102(e) as being obvious over Jagadish et al.

Claim 1 recites a method for managing information and rendering discounts in a billing system. The method comprises receiving a customer record including data. The method further comprises establishing a rule-based accumulation engine. The rule-based accumulation engine includes a non-application specific, configurable system that processes input data to produce output data where the processing is dictated by a set of configurable rules. The method further comprises processing the record with the accumulation engine to accumulate the data in a plurality of predetermined target accumulators.

The method further comprises establishing a rule-based discount engine. The rule-based discount engine includes a non-application specific, configurable system that processes input data to produce output data where the processing is dictated by a set of configurable rules. Finally, the method further comprises processing the plurality of target accumulators with the discount engine to render discounts applicable to the customer.

The claimed invention provides an improved method for managing information and rendering discounts in a billing system that utilizes a rule-based engine configured to accumulate data and render discounts. Each independent claim recites that each rule-based engine includes a non-application specific, configurable system that processes input data to produce output data where the processing is dictated by a set of configurable rules.

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This application had previously been before the Board of Patent Appeals and Interferences. In the decision on appeal, the Examiner's rejections of the claims on appeal were sustained when the terms "rule-based accumulation engine" and "rule-based discount engine" were interpreted to mean any processor which uses various rules to accumulate data and various rules to discount data.

However, in the Request for Continued Examination, Applicant further amended each independent claim to better point out the invention and cover the invention that the Applicant intended to cover. The amendments made to the claims better define the rule-based engines. Specifically, as now recited by the claims, each rule-based engine includes a non-application specific, configurable system that processes input data to produce output data where the processing is dictated by a set of configurable rules. Further, it is worth noting that in claim 1, there are two of these rule-based engines that perform actions within the overall method. The Examiner has dismissed these further limitations and maintains the same rejections made previously. Applicants believe that these further amendments to the claims restrict the broadest reasonable interpretation that can be given to the claims, and that the Examiner has not fully considered the amendments and their effects on the scope of the claims. Further, Applicants believe that the claims recite patentable subject matter.

Regarding Benyacar et al., this patent describes a method and apparatus for the billing of value added communication calls. The described method provides a sponsor realtime access to rate tables to specify call billing parameters needed to rate calls made to a sponsor number (such as a 900 number). A billing number is determined and validated and used to identify the party to receive a billing record for the call. A separate billing record is created for each call to the sponsor's number, which includes a sponsor specified charge as determined using the call billing parameters. As explained in column 10, lines 43-59, the caller's and the sponsor's bills are generated from the AMA billing record in a well-known manner (lines 43-45). That is, although Benyacar et al. mentions an AMA billing record and a telephone bill, there is no description or suggestion of the specific discount rendering method recited by

independent claim 1, including the combination of limitations now recited that includes the more detailed engine aspects.

Claim 1 recites a method that utilizes two different rule-based engines to manage information and render discounts in a billing system. Claim 1 further recites further limitations to particularly point out details of these rule-based engines.

Benyacar et al. mentions billing records, but fails to describe or suggest the method recited by independent claim 1. The Examiner has not given full consideration to the amendments made with the Request for Continued Examination.

The Examiner simply states that Benyacar et al. reads on establishing both a rule-based accumulation engine and a rule-based discount engine. The Examiner makes reference to SCI, DDI, and ASI (col. 10, ll. 22-27) and other carrier switch network arrangements (col. 5, ll. 60-62). These aspects of Benyacar et al. fail to suggest the specifically claimed features of the current pending claims.

As amended, claim 1 recites more than simply rendering discounts according to rules. In its current form, claim 1 recites specific details of each rule-based engine. The claim 1 method recites a specific process involving a number of actions including utilization of both engines. While Benyacar et al. only describes a particular billing method which could involve certain activities in billing, there is no suggestion of the particular method of claim 1 for utilizing the two rule-based engines including the specific features now recited by claim 1.

Regarding column 5, lines 60-62, this portion of Benyacar et al. is only noting that Benyacar et al. is not limited to the AT&T carrier switch network (CSN) and that Benyacar et al.'s invention could be adopted to operate with other carrier switch networks. That is, Benyacar et al. mentions that it is possible to use alternative carrier switch networks.

This has nothing to do with rule-based engines and fails to suggest the utilization of two rule-based accumulation engines with the particular details now recited by claim 1.

Regarding column 10, lines 22-27, this portion of Benyacar et al. only mentions various parameters that could be sent to the billing system in the AMA record. The possibility of sending various parameters to the billing system has nothing to do with providing rule-based engines with the specific features recited by the claims.

Benyacar et al. fails to specifically describe or suggest the claimed invention as recited in independent claim 1 as now amended. The previous rejections made by the Examiner ride on the Examiner's previous broadest interpretation of the rule-based engine features. The claims have been amended to better point out the invention and limit the reasonable scope of these claims. Nothing in Benyacar et al. suggests the use of a rule-based non-application specific, configurable system where processing is dictated by a set of configurable rules. The Examiner has, for the most part, restated the old rejections without acknowledging these new claim limitations. After all, the ability to use different carrier switch networks does nothing to suggest the particular features added to the independent claims. As well, the fact that various parameters could be sent to the billing system in the AMA record does not suggest a specific method for managing information and rendering discounts involving rule-based engines with the further limitations recited by the independent claims.

Applicants contend that the Benyacar et al. system is application specific, is not a configurable system, and does not involve processing dictated by configurable rules as recited in the claims. After all, Benyacar et al. specifically describes the use of AMA billing records and does not mention, or at least the Examiner does not point out, any suggestion of certain management and discounting techniques. The only reason that the Examiner was able to make the previous rejection is because the Examiner resorted to giving the claims a very broad meaning and then went on to reject them based on Benyacar et al.

Now, Applicants have restricted the meaning of the claims and the Examiner must point out specific teachings in the prior art of the newly added claim limitations and also must point out a suggestion or motivation in the prior art to combine those with other teachings in the prior art to achieve the claimed invention. The Examiner has not done this and claim 1 is believed to be patentable.

Claim 10 is an independent claim reciting a discount system for managing information and rendering discounts in a billing system. The discount system comprises a rule-based engine configured to receive a customer record, including data, process the record to accumulate the data in a plurality of predetermined target accumulators, and process the plurality of target accumulators to render discounts applicable to the customer. As explained above with respect to claim 1, the relied upon references fail to describe or suggest the rule-based engine in a discount system for managing information and rendering discounts in a billing system. As such, independent claim 10 as now amended is also believed to be patentable. Independent claim 11 recites computer-readable storage media and is believed to be patentable for similar reasons as those given above with respect to claim 1. Claims 2-9, and 12-19 are dependent claims and are also believed to be patentable.

Regarding Jagadish et al., Jagadish et al. describes telephone aggregated billing. This patent does describe a method and system in which calls made on two or more phone lines of a customer are aggregated for billing and discount billing plans to which the customer subscribes are applied to the aggregated phone usage of the customer. In column 4, lines 35-49, Jagadish et al. mentions applying customer specific parameters to a call, and using automatic number identification (ANI) to determine the identity of the party who initiated the call. However, Applicants point out that the independent claims recite specific methods for managing information and rendering discounts in a billing system that are not described or suggested by Jagadish et al.

The Examiner has not shown any teaching in the prior art of the particular features added by amendment to these claims, let alone shown a motivation or suggestion to combine these features and other features to achieve the claimed invention.

The Examiner has made reference to dictionaries in an attempt to broadly interpret the latest limitations of the claims. These limitations are meaningful and cannot be summarily dismissed by the Examiner. The claims recite more than the fact that something is configured. The claims specifically recite rule-based engines, including non-application specific, configurable systems to process data where the processing is dictated by a set of configurable rules. That is, the rules are configurable, the system is configurable, and as well, the system is not application specific. The relied upon references fail to suggest the flexibility provided by the claimed invention through the utilization of the rule-based engines.

For the reasons given above, the claims are believed to be patentable and such action is respectfully requested.

Respectfully submitted,

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